Docket: 3816.04-D3 November 22, 2005 (1:32pm)

Amendments to the Claims

1. (Previously presented) A wafer support tower for supporting wafers in parallel spaced relationship along a vertical axis, comprising:

two silicon bases;

a plurality of silicon legs joined at opposite ends to said two bases; and

a plurality of teeth having upper and lower surfaces both cut into said legs and extending outwardly from axially extending portions of said legs at an upwardly sloping angle of between 1° and 3° with respect to said vertical axis to support said wafers on upper sides of distal ends thereof.

2. (Original) The tower of Claim 1, wherein said silicon legs comprise virgin polysilicon.

3. (Original) The tower of Claim 2, wherein said virgin polysilicon has been annealed.

4. (Original) The tower of Claim 1, wherein support surfaces extending perpendicularly to said axis are formed in said distal ends to support said wafers.

5. (Original) The tower of Claim 4, wherein said support surfaces are polished.

6. (Original) The tower of Claim 4, wherein said support surfaces support said wafers at places located at between 69% and 72% of a radius of said wafers.

7. (Original) The tower of Claim 4, wherein said teeth have a generally wedge shape with said support surfaces being formed in a narrower side of said wedge shape.

8. (Original) The tower of Claim 1, wherein said teeth have a generally wedge shape

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with said distal ends being located in a narrower side of said wedge shape.

9. (Original) The tower of Claim 1, wherein said plurality of legs consists of either three or four of said legs.

10. (Original) A method of fabricating a silicon support tower, comprising the steps of:

in each of a plurality of silicon legs extending along a first axis, cutting a plurality of parallel slots to form teeth therebetween inclined at an angle of between 1° and 3° to a first side of said teeth with respect to a perpendicular to said first axis; and

joining opposite ends of said plurality of silicon legs to respective ones of two silicon bases to allow said teeth to support a plurality of wafers on said first sides thereof.

11. (Original) The method of claim 10, wherein said silicon legs comprise virgin polysilicon.

12. (Original) The method of claim 10, wherein said legs are annealed prior to said cutting step.

13. (Original) The method of claim 10, further comprising forming support surfaces extending perpendicularly to said first axis on said first sides of said teeth at distal ends thereof.

14. (Previously presented) A support tower for supporting wafers in parallel spaced relationship along a vertical axis, comprising:

two bases;

a plurality of legs joined at opposite ends to said two bases and disposable along said vertical axis;

a plurality of support teeth formed in said legs to have upper and lower sloping surfaces both extending outwardly from axially extending portions of said legs and sloping upwardly at a predetermined finite angle of no more than 3° with respect to said vertical axis; and

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support surfaces extending perpendicularly to said vertical axis formed in said upper sloping surfaces at distal ends of said support teeth to support said wafers thereon.

15. (Previously presented) The tower of Claim 14, wherein said bases and legs are formed of silicon members.

16. (Previously presented) The tower of Claim 15, wherein said legs are formed of virgin polysilicon members.

17. (Previously presented) The tower of Claim 14, wherein said legs are formed of quartz members.

18. (Previously presented) The tower of Claim 14, wherein said legs are formed of silicon carbide members.

19. (Previously presented) The tower of Claim 14, wherein said angle is at least 1°.

20. (Previously presented) The tower of Claim 19, wherein said bases and legs are formed of silicon members.

21. (Previously presented) The tower of Claim 14, wherein said support surfaces support said wafers at places located at between 69% and 72% of a radius of said wafers.

22. (Previously presented) The tower of Claim 14, wherein said teeth have generally wedge shapes with said distal ends being located in a narrower side of said wedge shapes.

23. (Previously presented) The method of Claim 13, wherein said step of forming said support surfaces includes polishing portions of distal ends of said inclined teeth in a plane perpendicular to said first axis.

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24. (Previously presented) A support tower for supporting substrates in parallel spaced relationship along a vertical axis, comprising:

two bases;

a plurality of legs joined at opposite ends to said two bases and disposable along said vertical axis; and

a plurality of support teeth formed in said legs to have parallel inclined upper and lower surfaces sloping upwardly from axial portions of said legs at a predetermined finite angle of no more than 3° with respect to a perpendicular of said vertical axis except for horizontal surfaces extending perpendicularly to said vertical axis formed only in said upper sloping surfaces and configured to support said substrates.

25. (Previously presented) The tower of Claim 24, wherein said bases and legs are formed of silicon members.

26. (Previously presented) The tower of Claim 25, wherein said legs are formed of virgin polysilicon members.

27. (Previously presented) The tower of Claim 24, wherein said legs are formed of quartz members.

28. (Previously presented) The tower of Claim 24, wherein said legs are formed of silicon carbide members.

29. (Previously presented) The tower of Claim 24, wherein said angle is at least 1°.

30. (Previously presented) The tower of Claim 24, wherein said horizontal surfaces support said substrates at places located at between 69% and 72% of a radius of said substrates.

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